EHRGEIZ

MANUAL

Cobalt Plus Beam 5R

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1. Safety instructions

- This device is suitable for indoor use (not outdoors) only.
- All modifications to the device will void the warranty.
- Repairs are to carry out by skilled personnel only.
- Use only fuses of the same type and original parts as spare parts.
- Protect the unit from rain and humidity to avoid fire and electric shocks.
- Make sure to unplug the power supply before opening the housing.

1.1. FOR SAFE AND EFFICIENT OPERATION

Be careful with heat and extreme temperature

Avoid exposing it to direct rays of the sun or near a heating appliance.

Not put it in a temperature bellow 32°F /0°C, or exceeding 104°F /35°C.

Keep away from humidity, water and dust

Do not place the set in a location with high humidity or lots of dust.

Containers with water should not be placed on the set.

Keep away from sources of hum and noise

Such as transformer motor, tuner, TV set and amplifier.

To avoid placing on un-stable location

Select a level and stable location to avoid vibration.

Do not use chemicals or volatile liquids for cleaning

Use a clean dry cloth to wipe off the dust, or a wet soft cloth for stubborn dirt.

If out of work, contact sales agency immediately

Any troubles arose, remove the power plug soon, and contact with an engineer for repairing, do not open the cabinet by yourself, it might result a danger of electric shock.

Take care with the power cable

Never pull the power cable to remove the plug from the receptacle, be sure to hold the plug.

When not using the device for an extended period of time, be sure to disconnect the plug from the receptacle.

Important: Damages caused by the disregard of this user manual are not subject to warranty. The dealer will not accept liability for any resulting defects or problems. Make sure the electrical connection is carried out by qualified personnel. All electrical and mechanical connections have to be carried out according to the European safety standards.

1.2. Further safety instructions

IMPORTANT

Damages caused by the disregard of this user manual are not subject to warranty. The dealer will not accept liability for any resulting defects or problems. Make sure the electrical connection is carried out by qualified personnel. All electrical and mechanical connections have to be carried out according to the European safety standards.

IMPORTANT

Keep away from water and humidity!

Make sure to unplug the power supply before opening the housing!

Please read careful through this manual before the first start-up.

All persons which are entrusted with installation, start-up, operation, maintenance and repair of this device have to:

- Show a corresponding competence.
- Follow the lines of this manual.
- Face this manual as part of the product.
- Keep this manual over the lifetime of the product.
- Pass this manual to new owners of the device.
- Download the latest version of the manual.

Safety-related red flags

IMPORTANT!

Handle with the dangerous electric voltages carefully.

With this voltage there is the danger to get a life-threatening electric shock.

Always observe

After taken the device from a cold room to a warm room, it is not allowed to activate the device.
It is possible that thereby emerged condensed water damages the device. Activate the device not until it reached ambient temperature.

Prevent that the power cable has contact with other cables. Handle carefully with power cables and power connections. Don’t touch them with clammy hands.

Make sure that the voltage which is to connect not exceeds the specified values.

Make sure that it isn't possible to squeeze or damage the power cable with sharp edges. Assure yourself with regular checks that there are no damages to the power cable or the device.

Unplug the power supply before every cleaning.

Don't switch the device in short time intervals (e.g. in second cycle) on or off.

Keep away children and laymen off the device.

Health risk!
Don't look directly into the light source. At certain circumstances it is possible that some people get epileptic seizures. This is especially true for individuals whose epilepsy was determined by a doctor.

Designated use

This device was developed for professional use on stages, in discos, theatres etc. The device is only approved for a connection up to 230V 50/60 Hz AC voltage and only for indoor use.

Regular breaks during operation increase the lifetime of your device.

Avoid convulsions or any form of forceful impact during the installation or the start-up of the device.

Make sure that the device is not exposed excessive heat, humidity or dust at the place of installation. Take care that no cables are lying around. You would endanger your own safety and also the safety of a third party.

It is not allowed to operate or store the device in an environment in which spray water, rain, humidity or fog is expected. Humidity or very high atmospheric humidity could reduce the isolation of the device and could cause deathly electric shocks. If you use fog devices the device has not be exposed to a direct smoke jet. There has to be a safety distance of at least 0.5m between this device and the fog machine. Make sure that the saturation of the fog has to enable a visibility of at least 10m.

Make sure that the beam is not pointed at combustible materials on a distance of at least 15m. Around the other parts of the device and between combustible materials you also need a distance of at least 0.5m.

The ambient temperature has to be between 0°C and +40°C. Avoid direct sunlight and close proximity to heaters. You have also to attend it during the transport in closed motor vehicles.

You have to attend that with an ambient temperature von 40°C it is not allowed that the relative humidity exceeds 50%.

Operate the device not during thunderstorms. Surge voltages could destroy the device. Unplug the power supply during thunderstorms.

During the installation the use of the mounting bracket is obligatory.

Surrounding objects or surfaces should not be in contact with the device.

Make sure that during the installation and removal of the device the area below the place of installation is basically cordoned off. This also applies to implementation of service.

The device has basically been protected by a suitable safety.

Make familiar yourself with the functions of the device before start-up. People without the experience should not handle with the device. The most cause of functional disorder is inappropriate handling.

Do not use chemicals or volatile liquids for cleaning. Use a clean dry cloth to wipe off the dust, or a wet soft cloth for stubborn dirt.

For transport use the original packing or designated accessory to avoid damages during the transport.

For reasons of safety unauthorized changes are forbidden.

An usage of the device which differs from usages which are described in this manual can cause damages of the device. In that case the warranty expires. Additional you should notice that every differed usage is related with dangers and can cause e.g. an electrical short, fire, electric shock or crash.

Overhead installation

Danger of life!
You have to observe the regulations of BGV C1 (formerly VBG 70) and EN60598-2-7! Installations are to carry out by skilled personnel only.

The suspension devices have to be build and measured so they can withstand for an hour the tenfold of the payload without suffering a permanent detrimental deformation.

Basically installation has to be made by using a second separate suspension. This can be e.g. a suitable net. The second suspension must be designed and attached so no part of the installation can fall down in case of failure.

During construction, reconstruction and deconstruction unnecessary stay in the range of moving areas, on lightning bridges, under elevated work stations or any other danger zones is forbidden.

The operator is obliged to following safety-related and mechanical facilities:

- Before the first start-up or after critical changes before restarting it has to be checked by an expert.
- Review in the frame of the inspection test at least all four years by an expert. .
- Review by a qualified person at least once a year.

How to carry out the overhead installation:
In tidal fall you should install the device out of the lounge area of people

IMPORTANT! Overhead installation requires a high level of experience. This includes knowledge of calculating the payload, used installation material and safety inspections of the used material and the projector whereas the required experience is not limited to this. Do not try to carry out installation yourself under any circumstances if you are not qualified. Contact a professional installer. An inappropriate installation can lead to injuries and/or damaged properties.

It is not allowed to install the device in the grip area of people.

If the device may hang from the ceiling or from high beams, the use of truss systems is mandatory. The device may not be installed so it can swing freely in the room.

Please note: Crashing down items can cause serious injuries! Do not install the projector, if you doubt the safety of a possible installation form!

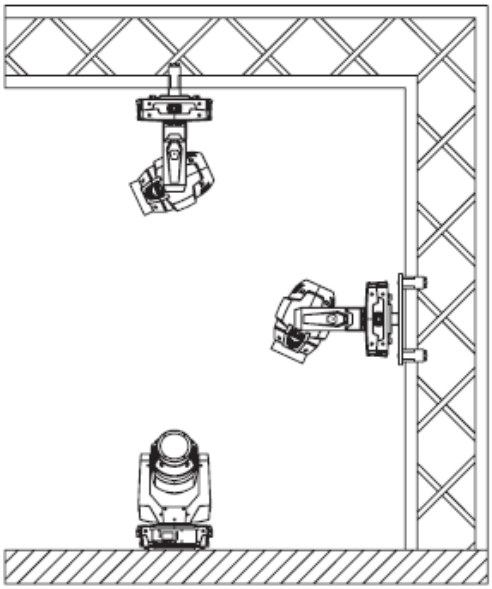
Before installation make sure that the mounting surface has the ability to carry the tenfold point load of the own weight of the device.

Mount the device with the mounting-bracket to your trussing system using an appropriate clamp.

During overhead installation the device must be always secured by a safety rope which is designed to hold the twelvefold weight of device. Only safety ropes with quick-release safety fastener elements may be used. Hang up the safety rope in the hole of the mounting bracket. Direct the rope over the truss or an appropriate fastening point. Hang up the end in the fastening element and tie up the locking nut. A safety rope once exposed to failing load or damaged may not be used furthermore.

The maximum drop exceed must not exceed 20cm.

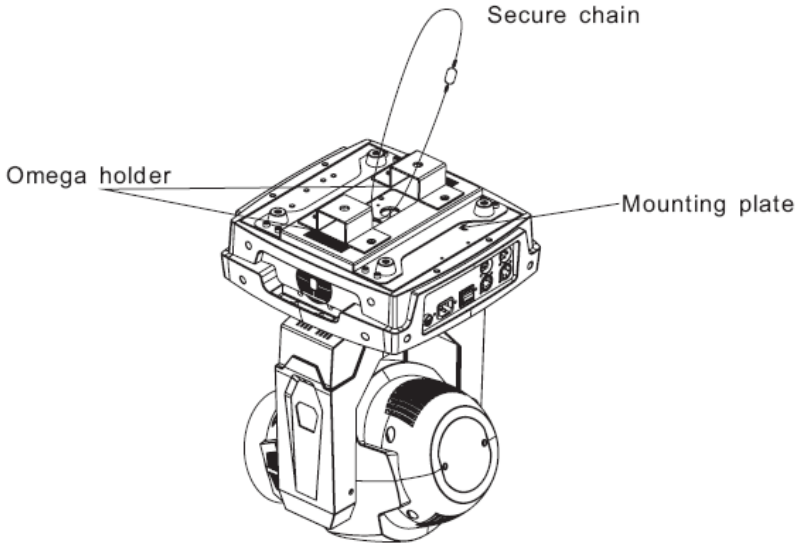
A safety rope once exposed to failing load or damaged may not be used furthermore.
Adjust the desired inclination angle via the mounting bracket and tighten the screw.
The lamp which is used in this device is a gas discharge lamp. If you turn off the lamp you have to wait at least 15 minutes before turn it on again. Fast on and off of the lamp reduces the lifetime drastic. Breaks increase the lifetime.



1.3. Mounting

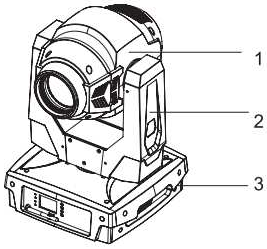
Basically you can operate the device in every position

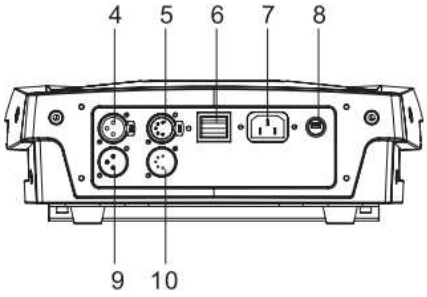
Take care of the CE regulations! The installation should be made by professionals.



2. Description

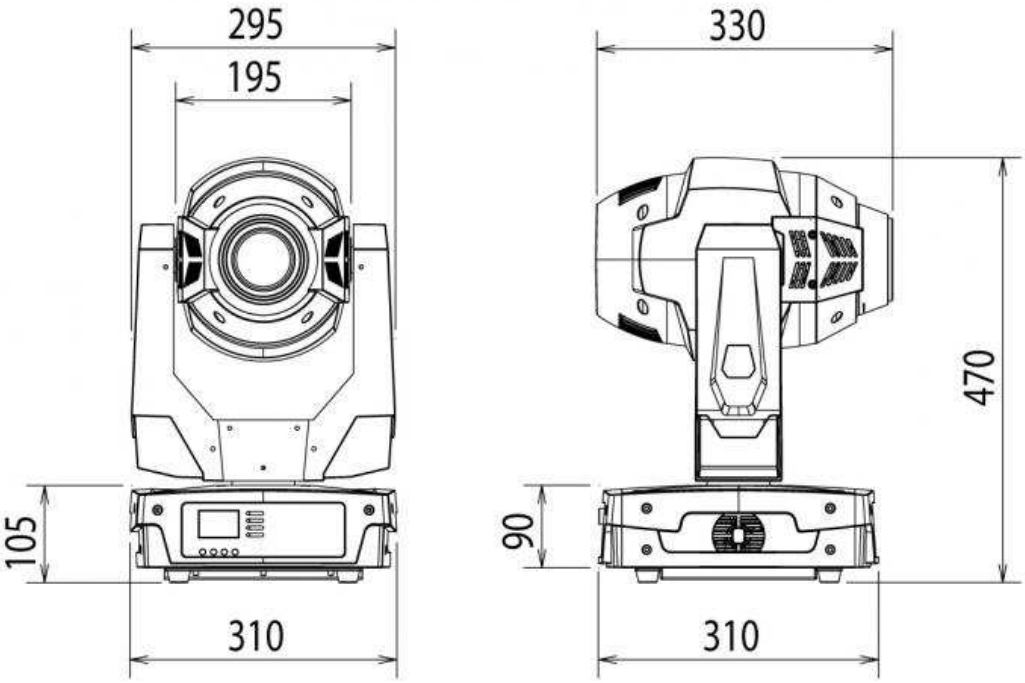
1. Head
2. Arm
3. Base





4. XLR 3Pol female
5. XLR 5Pol female
6. Power on/off
7. Power connection
8. Fuse
9. XLR 3Pol male
10. XLR 5Pol male

2.1. Measurements



3. Connections

3.1. Electrical connections

Connect the device with the power supply system by using the standard power cable. The ground has always to be connected.

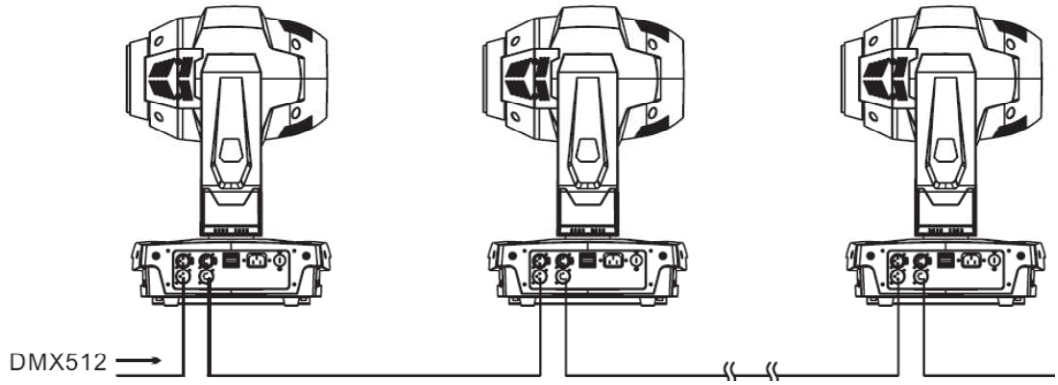
L = brown cable

N = blue cable

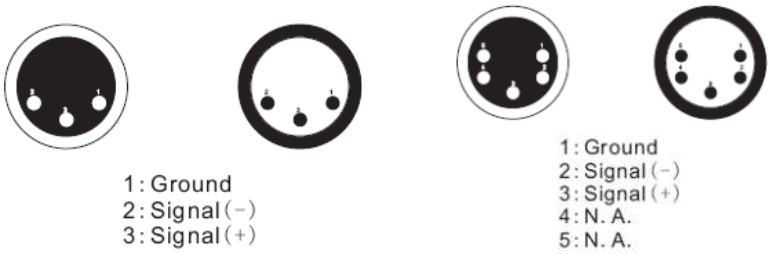
⏚ = green-yellow cable

3.2. DMX connections

To make a DMX512 connection go ahead like it is described in the picture. Make sure that you use shielded cable. 3pole or 5pole XLR cables are suitable.
Important! After the last device the line has to be terminated. In order to do this you have to solder a 120Ω resistor between the pins Data + and Data -. You can solder this end resistor on a 3pin or 5pin XLR: Plug this adapter into the DMX output of the device

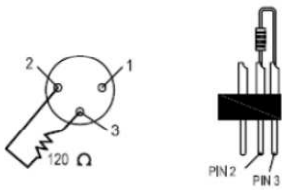


3.3. Pin allocation



DMX 3Pol output input DMX 5Pol output input

3.4. DMX terminator diagram



At installation where the cable has to span long distances, or can be disturbed by other cables, it is useful to use end resistors. The DMX terminator is a XLR plug which has a 120Ω resistor between pin2 and pin3. This is plugged in the last device of a DMX chain.

4. Display operation

4.1. Navigation menu

The navigation menu has diverse functions. Setting the DMX address, turn the lamp on/off or resetting the device. To get to the main menu push the MODE button until the display starts to blink. You can choose the menu point by pushing the UP/DOW buttons. When you have found the required menu

point push ENTER to confirm. You can changes the values with the UP/DOWN buttons. Store with ENTER. To get back to the menu push MENU again. For more information about the functions read out the next chapters.

4.2. Function Mode

- Press MODE
- Use the UP/Down to scroll through the menu until you can read FUNCTION MODE in the display.
- Confirm with ENTER.
- Now you can see the following menus.

4.2.1. Set DMX Address

Here you can set the required DMX address.

- Push the UP/DOWN buttons until you can see SET DMX ADDRESS in the display.
- Press ENTER.
- Use the UP/DOWN buttons to set the DMX address between 1 – 512
- Confirm with ENTER.
- Press MENU to get back to the last menu.

4.2.2. Value Display

With this function you can read out the value of every channel. The display shows automatically the channel which value is changed.

4.2.3. Auto Program

With this function you can choose an automatic program.

4.2.4. Music Control

With this function the internal programs are music controlled.

4.3. Information menu

4.3.1. Time Information

With this function you can read out the running time of the lamp and the device and reset the temporary file.

4.3.2. Temp Information

Here you can read out the temperature of the head and the base.

4.3.3. Product Information

Here you can read out the number of the model and the software version.

4.4. Lamp control

4.4.1. Switch Lamp

Here you can turn the lamp on or off. Please use the UP/DOWN buttons to choose between ON and OFF.

4.4.2. Power on light

Here you can choose if the lamp should start suddenly when you turn on the device. Please use the UP/DOWN buttons to choose between ON and OFF.

4.4.3. Light by DMX

When this mode is activated you can turn the lamp on or off via DMX. In good time prior to turn off the device increases the lifetime of the lamp. Please use the UP/DOWN buttons to choose between ON and OFF.

4.4.4. Lamp on delay

Use this function, to turn on the lamp after a predetermined time after sending the actuation signal. Use 5M, this means 5s.

4.5. Personality

4.5.1. Status Setting

In this menu you can change the basic setting.

Address via DMX:

If you activate this function you can send the DMX address via DMX (RDM) with a special controller.

No DMX Status

Here you can set what should happen if the device lost the DMX signal. You can choose between three possibilities: Automatic, Close and Hold. Hold is the standard setting.

Pan Reverse

Here you can invert the pan function.

Mic Sensitivity

Here you can set the sensitivity of the microphone.

DMX Mode

Here you can choose between DMX mode 1 and DMX mode 2.

Reset default:

Here you can reset the device.

Display settings:

With this function you can set if the display should shut down after 2-59 seconds.

Temperature C/F:

Here you can set if the temperature should be shown in Celsius or Fahrenheit.

4.5.2. Reset Function

Here you can find different possibilities for reset. Choose the required functions with UP/DOWN buttons.

- Fixture error
- LCD screen
- Pan
- Tilt
- Color

4.6. Menu overview

Function Mode	Set DMX address	A001 - Axxx	
	Value Display	PAN Moving….	
	Auto Program	Master	
		Alone	
		OFF	
	Music Control	Master	
		Alone	
		OFF	
Information	Time Information	Current Time	ON/OFF
		Total Run Time	ON/OFF
		Clear Fixture Time	ON/OFF
	Temp. Information	Head Temp	ON/OFF
	Product Info	Logo	
		Unit model, VerXX	
		Company WEB	
Lamp control	Switch Lamp	ON/OFF	
	Power on light	ON/OFF	
	Light by DMX	ON/OFF	
	Lamp on delay	05M	
Personality	Status Settings	Addr. Via DMX	ON/OFF
		No DMX Status	Close
			Hold
			Auto
			Music
		Pan Reverse	ON/OFF
		Tilt Reverse	ON/OFF
		Fine Resolution	ON/OFF
		Feedback	ON/OFF

		Mic Sensitivity	0-99%
	Fans Control	Auto Fans Speed	
		High Fans Speed	
		Low Fans Speed	
	Display Set	Dis Close Time	02-59M
	Temperature C/F	Celsius/Fahrenheit	
	Reset Default	ON/OFF	
Reset Function	ResetAll, Reset Pan/tilt, Reset Color, Reset Gobo, Reset Else		
Adjust	Test Channel	PAN……XXX	PAN = XXX
		TILT ……XXX	
	Regulate Value	-Password-	Password = XXX
		PAN	PAN = XXX

5. DMX table

Mode 1	Mode 2	Name	Function	DMX Value
1	1	PAN 8BIT		0-225
2		PAN16BIT		0-225
3	2	TILT8BIT		0-225
4		TILT16BIT		0-225
5	3	Speed pan/tilt movement	max to min speed	0-225
			blackout by movement	226-235
			blackout by all wheel changing	236-245
			no function	
6	4	Color Wheel 1	Open/white	0-12
			Color 1	13-25
			Color 2	26-38
			Color 3	39-51
			Color 4	52-64
			Color 5	65-77
			Color 6	78-90
			Color 7	91-103
			Color 8	104-116
			Color 9	117-127
			Forwards rainbow effect from fast to slow	128-187
			No rotation	188-193
			Backwards rainbow effect from slow to fast	194-255
7	5	Rotating gobos index, cont.rotation	Open	0-5
			Rot. gobo 1	6-11
			Rot. gobo 2	12-17
			Rot. gobo 3	18-23
			Rot. gobo 4	24-29
			Rot. gobo 5	30-35
			Rot. gobo 6	36-41

			Rot. gobo 7	42-47
			Rot. gobo 8	48-53
			Rot. gobo 9	54-59
			Rot. gobo 10	60-65
			Rot. gobo 11	66-71
			Rot. gobo 12	72-79
			Gobo 1 shake slow to fast	80-89
			Gobo 2 shake slow to fast	90-99
			Gobo 3 shake slow to fast	100-109
			Gobo 4 shake slow to fast	110-119
			Gobo 5 shake slow to fast	120-129
			Gobo 6 shake slow to fast	130-139
			Gobo 7 shake slow to fast	140-149
			Gobo 8 shake slow to fast	150-159
			Gobo 9 shake slow to fast	160-169
			Gobo 10 shake slow to fast	170-179
			Gobo 11 shake slow to fast	180-189
			Gobo 12 shake slow to fast	190-199
			Rot. gobo wheel cont. Rotation slow to fast	200-255
8	6	Gobo rotating	No rotation	0-8
			Forwards gobo rotation from fast to slow	9-127
			No rotation	128-135
			Backwards gobo rotation from slow to fast	136-255
9	7	Prism, Frost	Open	0-63
			3 Prism	64-127
			8 Prism	128-191
			Frost	192-255
10	8	Prism rotating	No rotation	0-5
			Forwards gobo rotation from fast to slow	6-125
			No rotation	126-131
			Backwards gobo rotation from slow to fast	132-255
11	9	Prism macros	No function	0-15
			Macro 1	16-31
			Macro 2	32-47
			Macro 3	48-63
			Macro 4	64-79
			Macro 5	80-95
			Macro 6	96-111
			Macro 7	112-127
			Macro 8	128-143
			Macro 9	144-159
			Macro 10	160-175

			Macro 11	176-191
			Macro 12	192-207
			Macro 13	208-223
			Macro 14	224-239
			Macro 15	240-255
12	10	Focus	Continuous adjustment form near to far	0-255
13	11	Strobe	Shutter closed	0-31
			No function (shutter open)	32-63
			Strobe effect slow to fast	64-95
			No function (shutter open)	96-127
			Pulse-effect in sequences	128-159
			No function (shutter open)	160-191
			Random strobe effect slow to fast	192-223
			No function (shutter open)	224-255
14	12	Dimmer	Intensity 0 to 100%	0-255
15	13	Reset, Lamp on/off	color change normal	0-19
			Color change to any position	20-39
			Lamp switch off	40-59
			No function	60-79
			All motor reset	80-84
			Scan motor reset	85-87
			Colors motor reset	88-90
			Gobo motor reset	91-93
			No function	94-96
			Other motor reset	97-99
			Internal program 1	100-119
			Internal program 2	120-139
			Internal program 3	140-159
			Internal program 4	160-179
			Internal program 5	180-199
			Internal program 6	200-219
			Internal program 7	220-239
			Lamp on	240-255

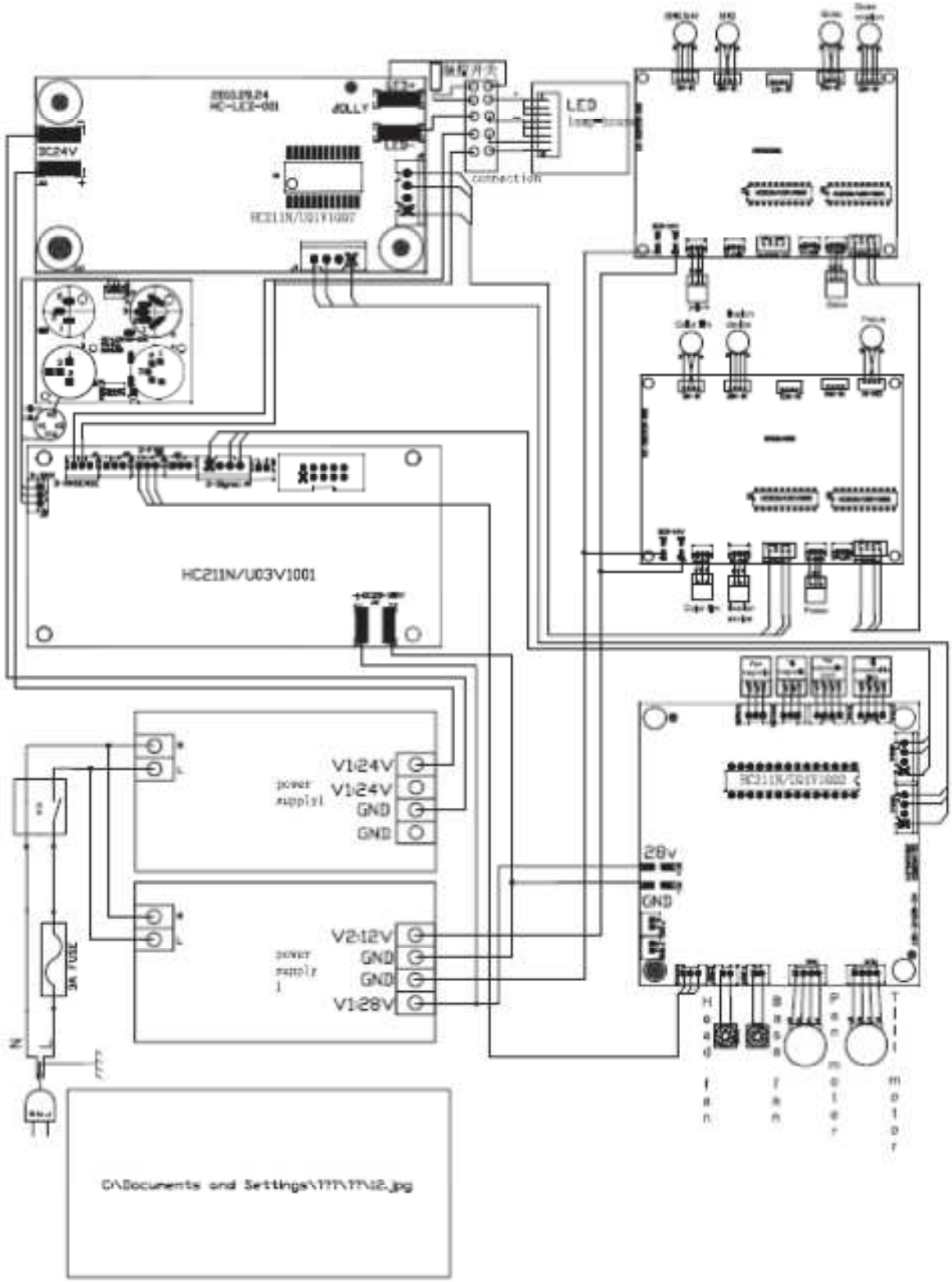
6. Technical Data

Light source:	MSD Platinum 5R (Philips)
Wattage:	315W at AC230V/50Hz
Voltage:	AC100-250V 50/60Hz
Weight:	12,5kg

6.1. Device characteristics

- 15 DMX channels
- Pan: 540°
- Tilt: 260°
- Prism: 3-way und 8-way prism

6.2. Circuit diagram



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